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**RECORD OF ORAL HEARING**

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

*Ex parte* DAGMARA ORTMANN, KLAUSE-DIETHER WIESE,  
OLIVER MOLLER and DIRK FRIDAG

Appeal 2009-007994  
Application 10/584,148  
Group Art Unit 1600

## **Oral Hearing Held: February 2, 2010**

Before TONI R. SCHEINER, DONALD E. ADAMS, and  
LORA M. GREEN, *Administrative Patent Judges*.

**ON BEHALF OF THE APPELLANTS:**

HARRIS A. PITLICK, ESQ.  
Oblon, Spivak, McClelland,  
Maier & Neustadt, L.L.P.  
1940 Duke Street  
Alexandria, VA 22314

1                   *The above-entitled matter came on for hearing on Tuesday,*  
2                   *February 2, 2010, commencing at 10:37 a.m., at the U.S. Patent and*  
3                   *Trademark Office, 600 Dulany Street, 9th Floor, Alexandria, Virginia,*  
4                   *before Jan M. Jablonsky, Notary Public.*

5                   THE CLERK: Good morning. Calendar number 9, appeal  
6                   number 2009-007994, Mr. Pitlick.

7                   JUDGE SCHEINER: Thank you. Good morning.

8                   MR. PITLICK: Good morning.

9                   JUDGE SCHEINER: Whenever you are ready, you -- oh, I am  
10                  sorry. Do you have a business card for our reporter, please? Or, failing that,  
11                  if you just give him the spelling of your name and your firm -- thanks.

12                  MR. PITLICK: Okay. What we have here is just one rejection  
13                  under section 103. In the Final Rejection, the Examiner has relied on two  
14                  additional references, and under the well-known footnote in re Hoch, we  
15                  considered these two references also as part of the rejection. However, the  
16                  Examiner's Answer -- I mentioned it also. I am assuming that the rejection  
17                  is simply Gatrone and Martin and -- or Martin.

18                  The invention here is a process for preparing organophosphorus  
19                  compounds. It's a condensation reaction of a organophosphorus compound  
20                  having -- groups and a compound having hydroxyl groups. And the -- just  
21                  the invention -- the way it differs from the prior art is that this condensation  
22                  reaction is carried out in the presence of this one basic ion exchange resin.

23                  Now, as we have indicated in the specification, in the  
24                  background, such reactions have been carried out with the addition of a base.  
25                  But that is problematical, in terms of things like reactions, you have to  
26                  remove byproducts, things of that sort. What is surprising in this case, that

1 basically these problems are substantially less with the use of the ion  
2 exchange resin.

3 JUDGE ADAMS: If I may, can -- if I could focus you just a  
4 little bit on the references, the Gatrone reference --

5 MR. PITLICK: Sorry, which one?

6 JUDGE ADAMS: The G reference, Gatrone?

7 MR. PITLICK: Yes.

8 JUDGE ADAMS: It speaks to the use of ion exchangers, but  
9 that is post-synthesis, really --

10 MR. PITLICK: Yes.

11 JUDGE ADAMS: That is purification stuff.

12 MR. PITLICK: Yes.

13 JUDGE ADAMS: Is that right? So that reference alone does  
14 not get us to incorporating an ion exchanger into the actual synthesis  
15 reaction, as required by your claim, right? The condensation reaction.

16 MR. PITLICK: Yes, absolutely.

17 JUDGE ADAMS: Now, I'm struggling a little bit with Martins,  
18 the Martin reference.

19 MR. PITLICK: Yes.

20 JUDGE ADAMS: It seems to me you say in your Brief, at least  
21 in part, that you are somewhat agreeing with the concept -- this is at page  
22 five of your Brief -- agreeing with this concept that the Examiner puts forth  
23 that Martin discloses reacting a particular halogenated phosphorous  
24 compound with hydroxyl compound in the presence of a basic ion exchange  
25 resin.

26 MR. PITLICK: Well --

27 JUDGE ADAMS: Is that correct?

1 MR. PITLICK: Yes. But –

2 JUDGE ADAMS: Okay. Show me where in Martin that you  
3 are referring to that. You say it is 7922 –

4 MR. PITLICK: Okay, on page 7922 -- first of all, as we  
5 pointed out, the compounds in Martin have a phosphorous double-bond  
6 oxygen point. So there is a difference right there.

7 JUDGE ADAMS: Right, right –

8 MR. PITLICK: But in –

9 JUDGE ADAMS: Let's just focus on where this ion exchanger  
10 is.

11 MR. PITLICK: Yes. In scheme one.

12 JUDGE ADAMS: Yes.

13 MR. PITLICK: He's got pyridine water, then Amberlite.

14 JUDGE ADAMS: That would be that little italic "B," and the  
15 arrow going across --

16 MR. PITLICK: Right.

17 JUDGE ADAMS: -- right?

18 MR. PITLICK: Right. And the –

19 JUDGE ADAMS: What is he using that for?

20 MR. PITLICK: We don't know, and that's the thing. It's –

21 JUDGE ADAMS: Okay. It is not -- if you -- do you have that  
22 reference in front of you?

23 MR. PITLICK: I do.

24 JUDGE ADAMS: Okay. Underneath scheme one there, the  
25 legend to scheme one that first paragraph there, follow it down about four  
26 lines, and you will see that he is talking about the reaction of the group two

1 that he has in his scheme, and group three. And he reacts -- in quinoline and  
2 acetonitrile, it's zero degrees for five hours, right?

3 MR. PITLICK: Yes.

4 JUDGE ADAMS: Followed by quenching with pyridine water  
5 in the presence of IWT -- that is his ion exchange resin, right?

6 MR. PITLICK: That's right.

7 JUDGE ADAMS: Okay. So, can you tell me again what B is  
8 doing in this reaction?

9 MR. PITLICK: I'm not sure what it's doing. But it's obviously  
10 being used after the fact of the reaction.

11 JUDGE ADAMS: So is that a mistake, or you're just sort of  
12 going along with the Examiner on page of your Brief there, where you said it  
13 is involved in the reaction?

14 MR. PITLICK: Well, let me see what I said.

15 JUDGE ADAMS: Okay. First full paragraph, page five of the  
16 Brief. Starts, "Martin does not remedy the above-discussed deficiencies."

17 (Pause.)

18 MR. PITLICK: Well, I mean, I said, "In the presence of a basic  
19 ion." I suppose yes, based on the actual disclosure that he pointed out, it  
20 appears that it is, again, being used after the fact, in terms of -- as you  
21 quoted, there is a quenching going on with the pyridine and the --

22 JUDGE ADAMS: Now, in your mind, "quenching" means  
23 stop, right?

24 MR. PITLICK: Yes.

25 JUDGE ADAMS: You stop the reaction by adding an ion  
26 exchanger, is that right?

27 MR. PITLICK: That is how I would understand it, yes.

1                   JUDGE ADAMS: So we have one reference, the G reference,  
2 that talks about using an ion exchanger for purification after the fact. And  
3 then we have the M reference, Martin, that talks about stopping a reaction  
4 with an ion exchanger, right?

5                   And the Examiner is using these two references to suggest an  
6 ion -- the use of an ion exchanger in the presence of a condensation reaction,  
7 right?

8                   MR. PITLICK: Yes.

9                   JUDGE ADAMS: Does that make sense?

10                  MR. PITLICK: No.

11                  JUDGE ADAMS: Okay. Now, this idea that you were going  
12 after with the base, the Examiner is of the opinion that any base, any base  
13 whatsoever, can be used in this reaction. I think that is where you were  
14 heading us, down this path, when you started. Right?

15                  But in this case, we have some art that talks about you are  
16 actually quenching the reaction with the ion exchanger. Is that a basic  
17 exchanger, as far as you know, that IWT TMD8? I do not know if it is, or  
18 not.

19                  MR. PITLICK: You know, I'm not sure. Because, in terms of  
20 this reaction -- which, again, is dealing with different phosphorous  
21 compounds -- I'm not sure exactly what's happening there.

22                  JUDGE ADAMS: Okay.

23                  MR. PITLICK: And I'm not here to testify on the chemistry. I  
24 am sure you know it much better than I do. But you know, it's there in black  
25 and white, as you point out, and they say "quenching."

26                  So, there is two differences. There is -- not only is the  
27 compound different, but it's not being used during the reaction in order to, in

1 effect, absorb, neutralize, et cetera, what a basic ion exchange resin would  
2 do.

3 JUDGE ADAMS: Now, this -

4 MR. PITLICK: -- is generated.

5 JUDGE ADAMS: Now, again, this idea of any base would  
6 work, what was your argument in response to any base -- so the Examiner --  
7 if I am recalling the Examiner's rejection or arguments correctly, any base  
8 would work. So, therefore, you put in an ion exchanger to suck up the  
9 extraneous ions in the reaction.

10 MR. PITLICK: Well, I guess our response was they have used  
11 bases -- for example, amines, things of that sort, and it doesn't work. I mean  
12 you still have this problem.

13 Whereas, with the basic ion exchange resin, preferably weaker  
14 base, or weak base, you don't have the problem. So, basically -- based on  
15 the result, the result is different. And while we didn't get into the  
16 comparative data and the specification because certainly, in our opinion,  
17 there is no case, but if you were to look at that data you will see -- and you  
18 get different results, in terms of using a base, compared to basic ion  
19 exchange resin.

20 So, they are not -- certainly in the art, they are not treated to be  
21 equivalent, certainly not equivalent in the way we are using it, and during  
22 the reaction, as opposed to later on, for purposes of neutralizing.

23 JUDGE ADAMS: So, it would not be acting like the pyridine  
24 in the Gatrone reference, right? Gatrone, at -- what is it -- 1080, where he is  
25 talking about the BIS 2N, he is talking about doing a reaction in the presence  
26 of pyridine, right?

1 MR. PITLICK: I haven't -- I'm on page 1080, but I'm not sure  
2 where you --

3 JUDGE ADAMS: It is the BIS 2N hexyloxyethyl --

4 MR. PITLICK: Twenty-eight?

5 JUDGE ADAMS: Yes, 28. Thank you.

6 MR. PITLICK: I think the pyridine is your typical amine. I  
7 mean your typical amine that acts as a base. Right. And as I say, you know,  
8 in the background of the invention, we indicate that that's traditional, they  
9 use an amine, which is a base, during such a reaction.

10 I mean, basically, what Gatrone says is it's no more than what  
11 we have already -- this particular reaction is old, but for the basic ion  
12 exchange resin.

13 JUDGE ADAMS: Okay. Did you want to add anything else?

14 MR. PITLICK: No. I think I -- I actually thank you for your  
15 help.

16 JUDGE ADAMS: Well --

17 (Laughter.)

18 MR. PITLICK: You are quite frank. I hope -- at least it  
19 seemed that way to me. But no, I --

20 JUDGE SCHEINER: Did you have anything to ask?

21 JUDGE GREEN: No.

22 JUDGE ADAMS: Okay, thank you.

23 Whereupon, at 10:49 a.m., the proceedings were concluded.

24 \* \* \* \*